CLAIMS

What is claimed is:

1. A synthetic CXCR3 polypeptide ligand comprising a polypeptide of from about 70 to about 125 amino acids in length, optionally further including an additional methionine attached to the ordinarily first amino acid at the N-terminus, the amino acid sequence of the polypeptide comprising, in sequence, discrete sub-sequences corresponding in amino acid identity and number to sub-sequences of different, naturally occurring CXCR3 ligands selected from IP-10, I-TAC, and Mig, where the amino acid sequence of the synthetic CXCR3 polypeptide differs from the amino acid sequence of naturally occurring CXCR3 ligands IP-10, I-TAC, and Mig.

2. The synthetic CXCR3 polypeptide ligand of claim 1, wherein the CXCR3 ligand comprises the amino acid sequence as set forth in any one of SEQ ID NOs:15-20.

3. A synthetic CXCR3 ligand comprising a polypeptide of from about 70 to about 125 amino acids in length, optionally further including an additional methionine attached to the ordinarily first amino acid at the N-terminus, the amino acid sequence of the polypeptide comprising those amino acid residues that are common to IP-10, Mig, and I-TAC, and which comprises, at one or more of those positions where there is no amino acid common to IP-10, Mig, and I-TAC, an amino acid which predominantly occurs at that position.

4. The synthetic CXCR3 polypeptide ligand of claim 3, wherein the CXCR3 ligand comprises the amino acid sequence as set forth in any one of SEQ ID NO:01, 02, and 03.

5. A composition comprising the synthetic CXCR3 ligand of any of claims 1-4.

6. A polynucleotide comprising a nucleotide sequence encoding a synthetic CXCR3 ligand of any of claims 1-4.

7. The polynucleotide of claim 6, wherein said synthetic CXCR3 ligand comprises the amino acid sequence set forth in any one of SEQ ID NO:01, 02, 03, 15, 16, 17, 18, 19, and 20.

8. An expression vector comprising the polynucleotide of claim 6 operably linked to a promoter.

9. A host cell comprising the polynucleotide of claim 6.

10. A host cell comprising the expression vector of claim 8.

11. A method for producing a synthetic CXCR3 ligand, the method comprising:

culturing the host cell of claim 10 under conditions that favor production of the synthetic CXCR3 ligand; and

isolating the synthetic CXCR3 ligand from the culture.

12. An antibody that specifically binds a synthetic CXCR3 ligand of any one of claims 1-4.

13. A method of treating a fibrotic disease in an individual, the method comprising administering to an individual suffering from a fibrotic disease an amount of a synthetic CXCR3 ligand that is effective in the treatment or prophylaxis of the fibrotic disease in the individual.

14. The method of claim 13, wherein the fibrotic disease is pulmonary fibrosis.

15. The method of claim 13, wherein the pulmonary fibrosis is idiopathic pulmonary fibrosis.

16. The method of claim 13, wherein the pulmonary fibrosis is from a known etiology.

17. The method of claim 13, wherein the fibrotic disease is selected from liver fibrosis, renal fibrosis, cardiac fibrosis, and scleroderma.

18. A method of reducing tumor growth in an individual having a tumor, the method comprising administering to the individual an effective amount of a synthetic CXCR3 ligand.

19. The method of claim 18, further comprising administering an effective amount of an anti-neoplastic agent selected from an alkylating agent, a nitrosourea, an antimetabolite, an antitumor antibiotic, a plant (vinca) alkaloid, a taxane, and a steroid hormone.

20. The method of any of claims 13-19, wherein the individual is a human.